

A NEW SPECIES OF *DELIAS* HÜBNER
(LEPIDOPTERA: PIERIDAE)
FROM THE STAR MOUNTAINS, PAPUA NEW GUINEA

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Abstract

Delias akrikensis sp. nov. is described from the south-eastern slopes of Mt Akrik, Star Mountains, Western Province, Papua New Guinea. It is easily distinguished from *D. alepa* Jordan and *D. weiskei* Ribbe, with which it flies, by wing markings on both the upper and undersides of both sexes. It appears to be closely related to *D. alepa*.

Introduction

Three subspecies of *Delias alepa* Jordan are recognised (Yagishita *et al.* 1993), all restricted to West Irian: *D. a. alepa* from Mt Goliath and the Snow Mountains, *D. a. kunupiensis* Joicey & Talbot from the Weyland Mountains and *D. a. orthobasis* Roepke from the Central Mountains. Two subspecies of *Delias weiskei* Ribbe are recognised (Yagishita *et al.* 1993), both confined to Papua New Guinea: *D. w. weiskei* from the Aroa River area and *D. w. sayauriae* Okano from the Kerowagi region.

Between 1991 and 1996 six males and a female of a species of *Delias* Hübner, with characters similar to both *D. alepa* and *D. weiskei*, were collected by RBL and M. S. Moulds from a single unnamed creek on the south-eastern slopes of Mt Akrik. Although these specimens are similar in general appearance and size to *D. weiskei* and *D. alepa*, they clearly differ in several characters, notably the absence of the orange-yellow found on the underside forewings of *D. weiskei* and the thin red submarginal line of the hind wing reaching the costa, unlike *D. alepa*. The seven specimens taken were found flying together with *D. alepa* and *D. weiskei*. The distinct nature of these seven individuals and lack of specimens intermediate between them and *D. alepa* or *D. weiskei* clearly support their status as a distinct species.

***Delias akrikensis* sp. nov.**

(Figs 1-4)

Types. PAPUA NEW GUINEA: Holotype ♂, Mt Akrik, 1700 m, Star Mountains, Western Province, 22.iii.1994, R.B. Lachlan. Paratypes: 4 ♂♂, 1 ♀, same locality, 1.iv.1991, 3.iv.1994, 2.iv.1994, R.B. Lachlan, 1 ♂, same locality, 21.xi.1996, M.S. Moulds. Holotype in Australian National Insect Collection, CSIRO, Canberra; paratypes in the collection of RBL.

Description. *Male.* Basal two-thirds of forewing upperside white to just beyond cell, its edge only slightly curved between the costa and tornus. Upperside of hind wing white with very thin black marginal border. Pattern of underside partly visible from above. Underside of forewing with white basal part slightly less extensive than the white area above. Diffuse black scaling on anterior third of cell, most intense basally. Four subapical yellow spots, the anterior two nearly confluent and together forming a broad

rounded patch. Hind wing with black ground colour. A small round to subovate cream discal patch is present between lower edge of discal cell and vein Rs; its inner edge is diffuse and straight and passes through middle of discal cell; its outer edge touches a thin red submarginal line which extends from the costa above the discal patch to vein 1A+2A. The red submarginal line has a small break at vein Rs. A short red subbasal stripe is present in space Rs and is distally white. A small red diffuse spot is present between middle of lower edge of cell and vein 1A+2A. Marginal area between the red line and outer edge of wing white from costa to middle of space M1. Length of forewing: 20-22 mm.

Female. Upperside of forewing with the white basal area slightly reduced and not extended beyond end of discal cell; two small white subapical spots. Hind wing with wider black border than male, particularly between veins M1 and CuA2. Veins Rs down to 1A+2A covered in black scales distally. Underside as in the male. Length of forewing: 21 mm.

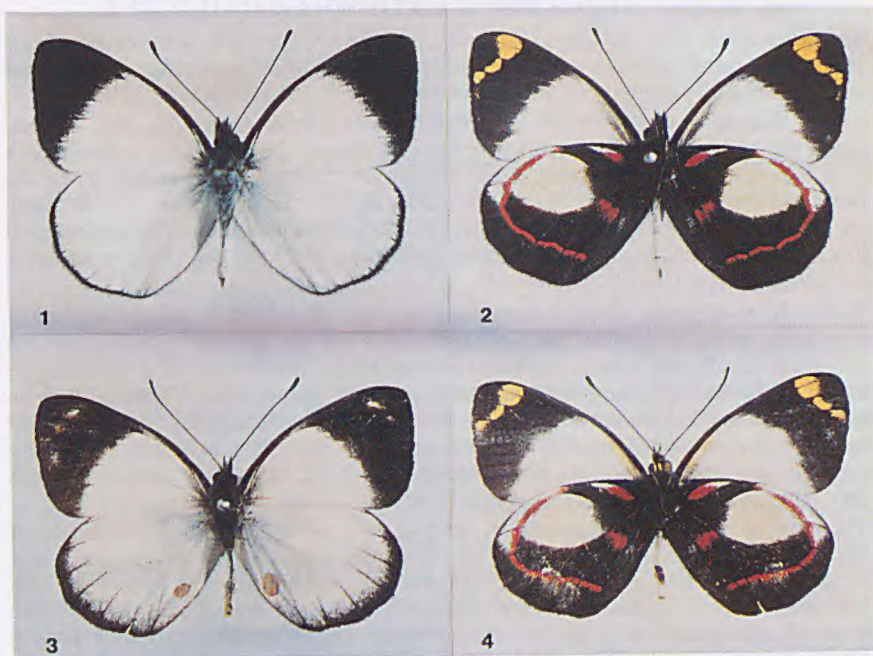
Etymology. *D. akrikensis* is named after Mount Akrik, the only known locality for the species.

Discussion

Although *D. akrikensis* closely resembles *D. weiskei* and *D. alepa*, *D. akrikensis* is unique in that both the upper and undersides of the forewing have a smaller basal white area than *D. weiskei* and *D. alepa*. The upperside of the male is almost identical to the male of *D. w. sayuriae* from Kerowagi, central PNG. The underside of the hind wing of *D. akrikensis* has the thin red submarginal line extending from the costa to vein 1A+2A, as in *D. weiskei*, but this line on *D. alepa* reaches vein Rs and does not pass through the cream discal patch that extends to the costal margin. The short red subbasal stripe in space Rs is clearly distally white in *D. akrikensis*, to a lesser degree in *D. weiskei* and entirely red in *D. alepa*. On the forewing underside *D. akrikensis* lacks the orange-yellow proximal area found in *D. weiskei* but the four yellow subapical spots of both these species are very similar in size and shape. The two dominant subapical spots are similar in size in all three species, but in *D. alepa* the minor spots are reduced to a thin line extending to the margin.

In overall appearance *D. akrikensis* most resembles *D. alepa*. On the upperside of the hind wing of the female of *D. akrikensis*, veins Rs to 1A+2A are clearly covered in black scales distally. This was not seen in any female specimen of *D. weiskei* or *D. alepa* collected at the same locality, nor does it show in the specimens figured in D'Abrera (1990) and Yagishita *et al* (1993).

It is surprising to note that despite intensive collecting at many different sites above and below 1700 m over several years in the upper Ok Tedi region, *D. akrikensis* was taken only at the type locality.



Figs 1-4. *Delias akrikensis* sp. nov. (1) male upperside, (2) male underside, (3) female upperside, (4) female underside.

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